



# Texin 970 U

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Aromatic polyether-based thermoplastic polyurethane with a Shore D hardness of approximately 70 for injection molding or extrusion.

**ISO Shortname**

Property	Test Condition	Unit	Standard	Value
<b>Rheological properties</b>				
Mold shrinkage, flow/cross to flow	Value range based on general practical experience	in/in	ASTM D955	0.008
<b>Mechanical properties (23 °C/50 % r. h.)</b>				
Flexural modulus	73 °F	lb/in <sup>2</sup>	ASTM D790	78000
Flexural modulus	158 °F	lb/in <sup>2</sup>	ASTM D790	17000
Flexural modulus	-22 °F	lb/in <sup>2</sup>	ASTM D790	293000
Tensile strength		lb/in <sup>2</sup>	ASTM D412	5500
Ultimate elongation		%	ASTM D412	250
Tensile stress at 50 % elongation		lb/in <sup>2</sup>	ASTM D412	3000
Tensile stress at 100 % elongation		lb/in <sup>2</sup>	ASTM D412	3200
Tensile stress at 300 % elongation		lb/in <sup>2</sup>	ASTM D412	5400
Compression set, as molded	22 h at 73 °F	%	ASTM D395-B	40
Compression set, as molded	22 h at 158 °F	%	ASTM D395-B	75
Compression set, as molded	22 h at 212 °F	%	ASTM D395-B	90
Compression set, post-cured	22 h at 73 °F; post-cured 16 h at 230 °F	%	ASTM D395-B	25
Compression set, post-cured	22 h at 158 °F; post-cured 16 h at 230 °F	%	ASTM D395-B	45
Compression set, post-cured	22 h at 212 °F; post-cured 16 h at 230 °F	%	ASTM D395-B	65
Compressive load	2% deflection	lb/in <sup>2</sup>	ASTM D575	150
Compressive load	5% deflection	lb/in <sup>2</sup>	ASTM D575	800
Compressive load	10% deflection	lb/in <sup>2</sup>	ASTM D575	1900
Compressive load	15% deflection	lb/in <sup>2</sup>	ASTM D575	2400
Compressive load	20% deflection	lb/in <sup>2</sup>	ASTM D575	2800
Compressive load	25% deflection	lb/in <sup>2</sup>	ASTM D575	3300
Compressive load	50% deflection	lb/in <sup>2</sup>	ASTM D575	7000
Tear strength, Die C		lbf/in	ASTM D624	1100
<b>Thermal properties</b>				
Glass transition temperature	DMA=Dynamic Mechanical Analysis	°F	DMA	32
Low-temperature brittle point		°F	ASTM D746	< -94
Deflection temperature under load	66 psi	°F	ASTM D648	155
Deflection temperature under load	264 psi	°F	ASTM D648	113
Vicat softening temperature		°F	ASTM D1525	284
Coefficient of linear thermal expansion, flow/cross-flow		in/in/°F	ASTM D696	6 E-05
<b>Other properties (23 °C)</b>				
Specific gravity		-	ASTM D792	1.18
Shore hardness		D Scale	ASTM D2240	70
Taber abrasion	H-18 wheel; 1,000-g; 1,000 cycles	mg Loss	ASTM D3489	75
Bayshore resilience		%	ASTM D2632	50

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## Disclaimer

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ASTM Datasheet